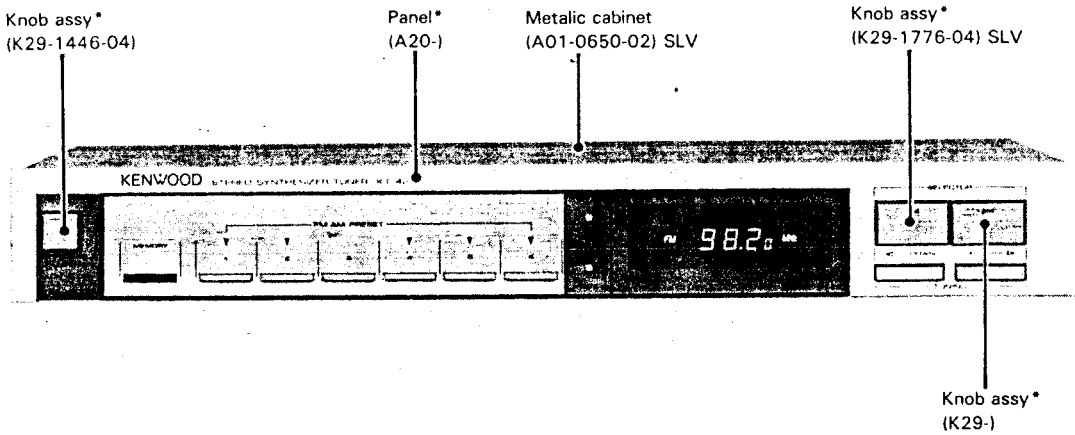
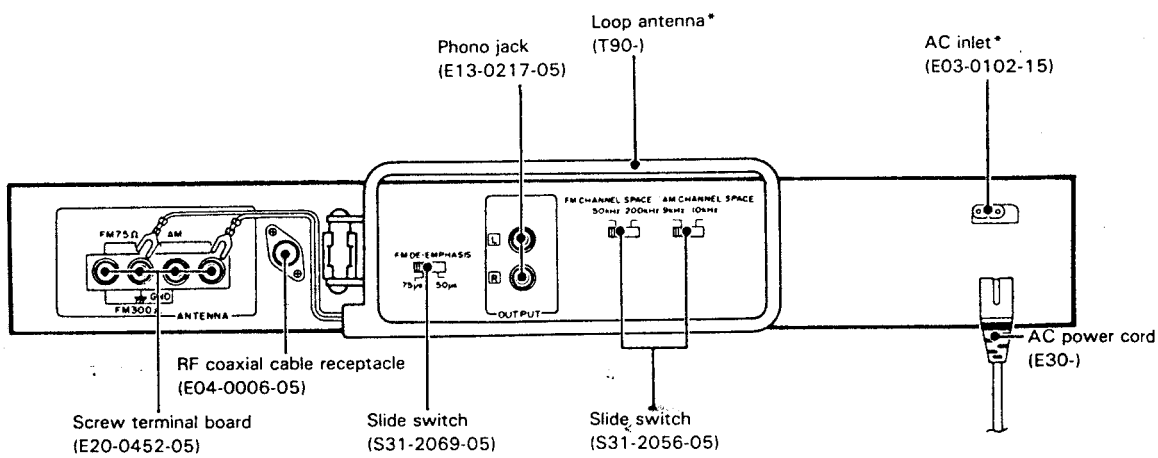
SERVICE MANUAL

KENWOOD

KT-42/B
KT-42L/LB

QUARTZ SYNTHESIZER STEREO TUNER

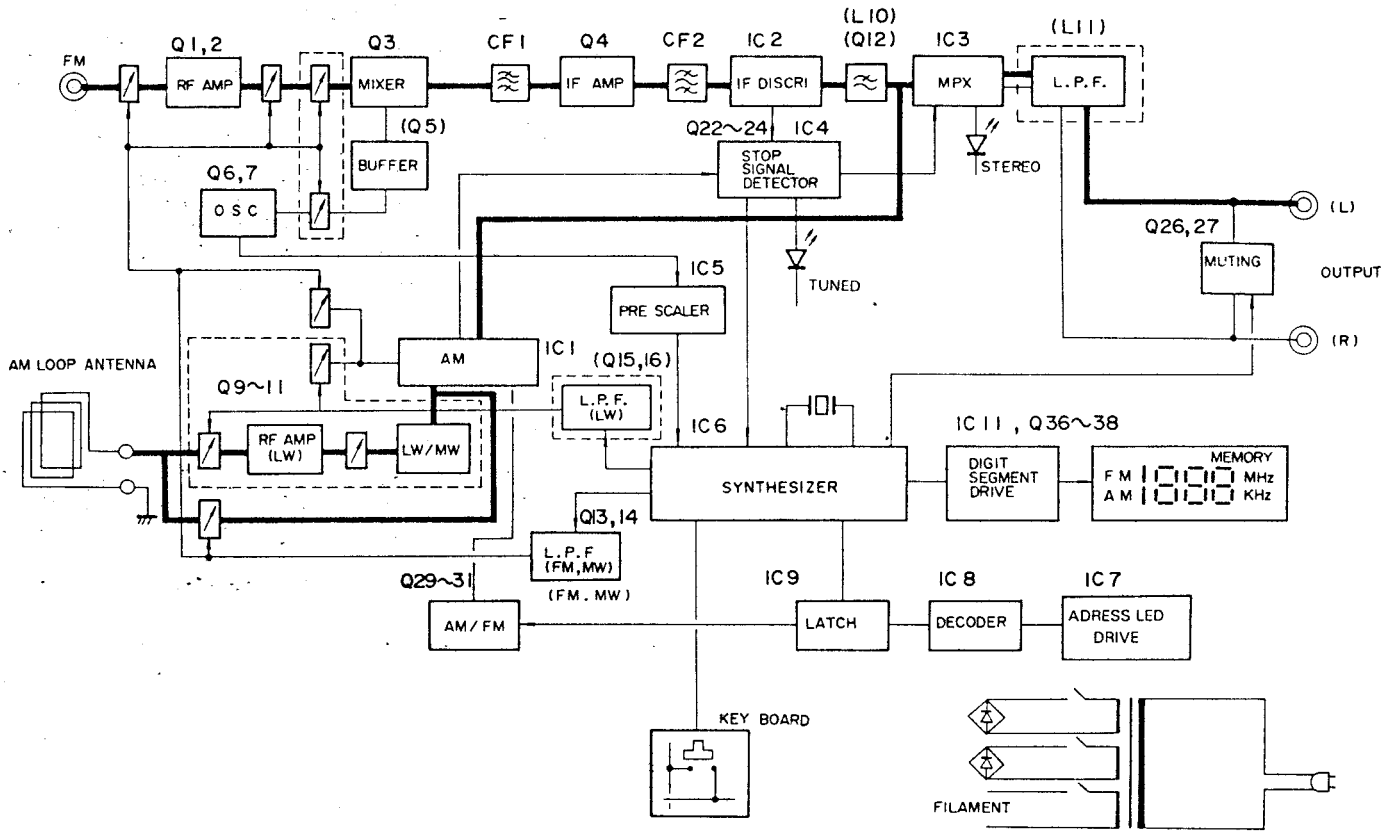




* Refer to Parts List on page 12.
Photo is KT-42.
SLV: Silver

BLOCK DIAGRAM/CIRCUIT DESCRIPTION

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Parts	Application and function	Operation and interchangeability
Q1	FM RF amp	With AGC (Automatic Gain Control)
Q2	FM RF amp	Without AGC
Q3	FM mixer	
Q4	FM IF amp	
Q5	FM OSC buffer	To inject Q3
Q6	FM OSC	
Q7	OSC amp, buffer	Buffer for IC5 (pre-scaler)
Q8	AGC control	To make the AGC time constant small to prevent TUNED indicator malfunction during turning
Q9	LW RF amp	
Q10	Buffer for MW	To select MW
Q11	Buffer for LW	To select LW
Q12	Buffer for B.B.F. (L10)	
Q13, Q14	Low-pass filter for FM and MW	To supply tuning voltage to the FM and MW variable capacitors
Q15, Q16	Low-Pass filter for LW	To supply tuning voltage to the LW variable capacitor
Q17	Muting drive	An "H" level signal is applied to the base at power ON or during tuning.

CIRCUIT DESCRIPTION

Parts	Application and function	Operation and interchangeability
Q18		The voltage at the collector becomes L level (0 V) at power ON.
Q19	Muting drive	Turns ON to power ON/OFF or during tuning.
Q20	For stereo operation level	The collector voltage becomes L level with the input of 40 μV (300 Ω).
Q21	Muting drive	The collector becomes L level at power ON/OFF or during tuning.
Q22	SD (Station Detector) for AM	The collector voltage becomes L level with the input of 10 μV (direct input) in AM mode.
Q23	SD (Station Detector) for FM	The collector voltage becomes H level with the input of 5 μV (300 Ω) in FM mode.
Q24	TUNED indicator (D65) drive	The collector voltage becomes L level with an input of a specified level in FM or AM mode.
Q25	Muting drive	Turns ON at power ON/OFF or during tuning. At the same time, Q26 and Q27 turn ON.
Q26, Q27	Muting	Turns ON at power ON/OFF or during tuning to mute the audio output.
Q28	CE control transistor for IC6.	The collector becomes L level at power ON/OFF. For normal operation, the collector is H level (5 V).
Q29	AM +B control	Turns ON in AM mode and a voltage of 12 V is applied to the collector. (AM circuit.)
Q30	FM +B control	Turns ON in FM mode and a voltage of 12 V is applied to the collector. (FM circuit.)
Q31	FM/AM voltage select control	Turns ON in FM mode and the collector becomes L level.
Q32	LW +B control	Turns ON in LW mode and a voltage of 12 V is applied to the collector.
Q33	MW+ B control	Turns ON in MW mode and the voltage of 12 V is applied to the collector.
Q34	MW/LW voltage select control	Turns ON in MW mode and the collector becomes L level.
Q35	FIP driver	Indication selector of 200 kHz or 50 kHz channel space (FIP)
Q36 ~ Q38	Buffer for FIP segment	
Q39	To prevent TUNED indicator mulfunction at power ON/OFF or during tuning.	At power ON/OFF, the collector voltage becomes L level. For normal operation, the collector voltage is 21 V.
Q40	To prevent preset indicator (D66) malfunction at power ON/OFF.	
Q41	To prevent pop noise or TUNE or preset indicator malfunction at power ON/OFF.	For normal operation, the collector voltage is L level.
Q42	Transistor for constant voltage	For normal operation, the emitter supplies a voltage of 12 V.
Q43	Transistor for constant voltage	For normal operation, the emitter supplies a voltage of 5.6 V.

CIRCUIT DESCRIPTION

Parts	Application and function	Operation and interchangeability
IC1	IC for AM	RF amp, Mixer, IF amp, Detector, OSC
IC2	IC for FM	IF amp, Quadrature detector
IC3	IC for MPX	
IC4	Inverter	SD, Muting, STEREO/MONO
IC5	FM pre-scaler	
IC6	FM/AM synthesizer IC	
IC7, IC8	Preset indicator (D66 — D71) drive	
IC9	NAND	FM/AM selection signal generation
IC10	NAND	MW/LW selection signal generation
IC11	Digit driver (transistor alley)	

ADJUSTMENT

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No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION	Unless otherwise specified, the individual switches should be set as following: SELECTOR: FM MODE: AUTO						
1	BAND EDGE	–	Connect a DC voltmeter to TP5.	87.9MHz	L6	2.5V	(a)
2	BAND EDGE	–	Connect a DC voltmeter to TP5.	107.9MHz	TC1	8.0V	(a)
	Repeat alignments 1 and 2 several times.						
3	RF ALIGNMENT	(A) 98.1MHz 1kHz,±75kHz dev	(B)	MODE: MONO 98.1MHz	L1,2,3	Maximum amplitude and symmetry of the oscilloscope display.	
4	DISCRIMINATOR (1)	(A) 98.1MHz 1kHz,±75kHz dev 60dB(ANT input)	Connect a DC voltmeter between TP1 and TP2.	MODE: MONO 98.1MHz	L7	0V	(b)
5	DISCRIMINATOR (2)	(A) 98.1MHz 1kHz,±75kHz dev 60dB(ANT input)	(B)	MODE: MONO 98.1MHz	L8	Minimum distortion.	
	Repeat alignments 4 and 5 several times.						
6	VCO	(A) 98.1MHz 0 dev 60dB(ANT input)	Connect a 330kΩ resistor to TP3. Connect a frequency counter to the resistor via an AC voltmeter.	98.1MHz	VR1	76.00kHz	(c)
7	DISTORTION (STEREO)	(C) 98.1MHz 1kHz,±68.25kHz dev Selector:L or R Pilot: ±6.75kHz dev 60dB(ANT input)	(B)	98.1MHz	L5	Minimum distortion.	
8	FM STOP LEVEL	(A) 98.1MHZ 1kHz,±75kHz dev 14dB(ANT input)	TUNE LED	98.1MHz	VR3	Adjust VR3 so that TUNE LED goes off. Then, adjust VR3 and stop at the point where the LED goes on.	
AM SECTION	Keep the AM loop antenna installed. SELECTOR: AM						
(1)	BAND EDGE	–	Connect a DC voltmeter to TP5.	530kHz (531kHz)	L14	1.5V	(a)
(2)	BAND EDGE	–	Connect a DC voltmeter to TP5.	1610kHz (1602kHz)	TC3	8.0V	(a)
(3)	RF ALIGNMENT (1)	(D) 630kHz 400Hz,30% mod	(B)	630kHz	L13	Maximum amplitude and symmetry of the oscilloscope display.	
(4)	RF ALIGNMENT (2)	(D) 1440kHz 400Hz,30% mod	(B)	1440kHz	TC2	Maximum amplitude and symmetry of the oscilloscope display.	
	Repeat alignments (3) and (4) several times.						

ADJUSTMENT

KT-42L

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION	Unless otherwise specified, the individual switches should be set as following: SELECTOR: FM MODE: AUTO						
1	BAND EDGE	—	Connect a DC voltmeter to TP5.	87.9MHz	L6	2.5V	(a)
2	BAND EDGE	—	Connect a DC voltmeter to TP5.	107.9MHz	TC1	8.0V	(a)
	Repeat alignments 1 and 2 several times.						
3	RF ALIGNMENT	(A) 98.1MHz 1kHz,±40kHz dev	(B)	MODE: MONO 98.1MHz	L1,2,3	Maximum amplitude and symmetry of the oscilloscope display.	
4	DISCRIMINATOR (1)	(A) 98.1MHz 1kHz,±40kHz dev 60dB(ANT input)	Connect a DC voltmeter between TP1 and TP2.	MODE: MONO 98.1MHz	L7	0V	(b)
5	DISCRIMINATOR (2)	(A) 98.1MHz 1kHz,±40kHz dev 60dB(ANT input)	(B)	MODE: MONO 98.1MHz	L8	Minimum distortion.	
	Repeat alignments 4 and 5 several times.						
6	VCO	(A) 98.1MHz 0 dev 60dB(ANT input)	Connect a 330kΩ resistor to TP3. Connect a frequency counter to the resistor via an AC voltmeter.	98.1MHz	VR1	76.00kHz	(c)
7	DISTORTION (STEREO)	(C) 98.1MHz 1kHz,±40kHz dev Selector:L or R Pilot: ±6kHz dev 60dB(ANT input)	(B)	98.1MHz	L5	Minimum distortion.	
8	SEPARATION	(C) 98.1MHz 1kHz,-40kHz dev Selector:L or R Pilot: ±6kHz dev 60dB(ANT input)	(B)	98.1MHz	VR2	Minimum crosstalk.	
9	FM STOP LEVEL	(A) 98.1MHZ 1kHz,±40kHz dev 14dB(ANT input)	TUNE LED	98.1MHz	VR3	Adjust VR3 so that TUNE LED goes off. Then, adjust VR3 and stop at the point where the LED goes on.	
AM-MW SECTION		Keep the AM loop antenna installed.		SELECTOR: AM			
(1)	BAND EDGE	—	Connect a DC voltmeter to TP5.	530kHz (531kHz)	L14	1.5V	(a)
(2)	BAND EDGE	—	Connect a DC voltmeter to TP5.	1610kHz (1602kHz)	TC3	8.0V	(a)
(3)	RF ALIGNMENT (1)	(D) 630kHz 400Hz,30% mod	(B)	630kHz	L13	Maximum amplitude and symmetry of the oscilloscope display.	
(4)	RF ALIGNMENT (2)	(D) 1440kHz 400Hz,30% mod	(B)	1440kHz	TC2	Maximum amplitude and symmetry of the oscilloscope display.	
	Repeat alignments (3) and (4) several times.						
AM-LW SECTION		Keep the AM loop antenna installed.		SELECTOR: LW			
(5)	BAND EDGE	—	Connect a DC voltmeter to TP4.	155kHz	L18	1.5V	(a)
(6)	BAND EDGE	—	Connect a DC voltmeter to TP4.	353kHz	TC5	8.0V	(a)
(7)	RF ALIGNMENT (1)	(D) 164kHz 400Hz,30% mod	(B)	164kHz	L16	Maximum amplitude and symmetry of the oscilloscope display.	
(8)	RF ALIGNMENT (2)	(D) 308kHz 400Hz,30% mod	(B)	308kHz	TC4	Maximum amplitude and symmetry of the oscilloscope display.	
	Repeat alignments (7) and (8) several times.						

REGLAGE

KT-42

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF		Sauf en cas d'indications spéciales, régler chaque commutateur comme suit: SELECTEOR: FM MODE: AUTO					
1	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	87,9MHz	L6	2,5V	(a)
2	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	107,9MHz	TC1	8,0V	(a)
		Répéter les points 1 et 2 plusieurs fois.					
3	ALIGNEMENT HT	(A) 98,1MHz 1kHz.±75kHz dév	(B)	MODE: MONO 98,1MHz	L1.2.3	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
4	DISCRIMINATEUR (1)	(A) 98,1MHz 1kHz.±75kHz dév 60dB(Entrée ANT)	Relier un voltmètre CC entre les TP1 et TP2.	MODE: MONO 98,1MHz	L7	0 V	(b)
5	DISCRIMINATEUR (2)	(A) 98,1MHz 1kHz.±75kHz dév 60dB(Entrée ANT)	(B)	MODE: MONO 98,1MHz	L8	Distorsion minimale.	
		Répéter les points 4 et 5 plusieurs fois.					
6	VCO	(A) 98,1MHz 0 dév 60dB(Entrée ANT)	Relier une résistance de 330kΩ à TP3. Raccorder un compteur de fréquence à une résistance par l'intèrmediaire d'un voltmètre CA.	98,1MHz	VR1	76,00kHz	(c)
7	DISTORSION (STEREO)	(C) 98,1MHz 1kHz.±68,25kHz dév Selection:L ou R Signal pilote: ±6,75kHz dév 60dB(Entrée ANT)	(B)	98,1MHz	L5	Distorsion minimale.	
8	MF NEVEAU D'ARRET	(A) 98,1MHz 1kHz.±75kHz dév 14dB(Entrée ANT)	TUNE LED	98,1MHz	VR3	Ajuster VR3 que TUNE LED est non allume. Alors, ajuster VR3 et arrêter le mouvement de VR3 au moment ou le TUNE LED s'allume.	
SECTION MA		Laisser l'antenne bouche MA installée. SELECTEOR: AM					
(1)	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	530kHz (531kHz)	L14	1,5V	(a)
(2)	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	1610kHz (1602kHz)	TC3	8,0V	(a)
(3)	ALIGNEMENT HT (1)	(D) 630kHz 400Hz.30% mod	(B)	630kHz	L13	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
(4)	ALIGNEMENT HT (2)	(D) 1440kHz 400Hz.30% mod	(B)	1440kHz	TC2	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
		Répéter les points (3) et (4) plusieurs fois.					

REGLAGE

KT-42L

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF		Sauf en cas d'indications spéciales, régler chaque commutateur comme suit: SELECTEOR: FM MODE: AUTO					
1	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	87,9MHz	L6	2,5V	(a)
2	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	107,9MHz	TC1	8,0V	(a)
		Répéter les points 1 et 2 plusieurs fois.					
3	ALIGNEMENT HT	(A) 98,1MHz 1kHz,±40kHz dév	(B)	MODE: MONO 98,1MHz	L1.2.3	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
4	DISCRIMINATEUR (1)	(A) 98,1MHz 1kHz,±40kHz dév 60dB(Entrée ANT)	Relier un voltmètre CC entre les TP1 et TP2.	MODE: MONO 98,1MHz	L7	0 V	(b)
5	DISCRIMINATEUR (2)	(A) 98,1MHz 1kHz,±40kHz dév 60dB(Entrée ANT)	(B)	MODE: MONO 98,1MHz	L8	Distorsion minimale.	
		Répéter les points 4 et 5 plusieurs fois.					
6	VCO	(A) 98,1MHz 0 dév 60dB(Entrée ANT)	Relier une résistance de 330kΩ à TP3. Raccorder un compteur de fréquence à une résistance par l'intèrmediaire d'un voltmètre CA.	98,1MHz	VR1	76,00kHz	(c)
7	DISTORSION (STEREO)	(C) 98,1MHz 1kHz,±40kHz dév Selection:L ou R Signal pilote: ±6kHz dév 60dB(Entrée ANT)	(B)	98,1MHz	L5	Distorsion minimale.	
8	SEPARATION	(C) 98,1MHz 1kHz,±40kHz dév Selection:L ou R Signal pilote: ±6kHz dév 60dB(Entrée ANT)	(B)	98,1MHz	VR2	Diaphonie minimale.	
9	MF NEVEAU D'ARRET	(A) 98,1MHz 1kHz,±40kHz dév 14dB(Entrée ANT)	TUNE LED	98,1MHz	VR3	Ajuster VR3 que TUNE LED est non allume. Alors, ajuster VR3 et arrêter le mouvement de VR3 au moment ou le TUNE LED s'allume.	
SECTION MA-OM			Laisser l'antenne bouche MA installée. SELECTEOR: AM				
(1)	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	530kHz (531kHz)	L14	1,5V	(a)
(2)	BORD DE BANDE	—	Relier un voltmètre CC au TP5.	1610kHz (1602kHz)	TC3	8,0V	(a)
(3)	ALIGNEMENT HT (1)	(D) 630kHz 400Hz,30% mod	(B)	630kHz	L13	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
(4)	ALIGNEMENT HT (2)	(D) 1440kHz 400Hz,30% mod	(B)	1440kHz	TC2	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
		Répéter les points (3) et (4) plusieurs fois.					
SECTION MA-OL			Laisser l'antenne bouche MA installée. SELECTEOR: LW				
(5)	BOAD DE BANDE	—	Relier un voltmètre CC au TP4.	155kHz	L18	1,5V	(a)
(6)	BOAD DE BANDE	—	Relier un voltmètre CC au TP4.	353kHz	TC5	8,0V	(a)
(7)	ALIGNEMENT HT (1)	(D) 164kHz 400Hz,30% mod	(B)	164kHz	L16	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
(8)	ALIGNEMENT HT (2)	(D) 308kHz 400Hz,30% mod	(B)	308kHz	TC4	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
		Répéter les points (7) et (8) plusieurs fois.					

ABGLEICH

KT-42

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-EMPFANGSABTEILUNG Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen: SELECTOR: FM MODE: AUTO							
1	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	87,9MHz	L6	2,5V	(a)
2	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	107,9MHz	TC1	8,0V	(a)
Abstimmungen 1 und 2 mehrere Male wiederholen.							
3	EMPFANGS-BEREICH-ABSTIMMUNGEN	(A) 98,1MHz 1kHz,±75kHz Hub	(B)	MODE: MONO 98,1MHz	L1.2.3	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
4	DISKRIMINATOR (1)	(A) 98,1MHz 1kHz,±75kHz Hub 60dB(ANT-Eingang)	Einen Gleichspannungs-messer zwischen TP1 und TP2 anschließen.	MODE: MONO 98,1MHz	L7	0 V	(b)
5	DISKRIMINATOR (2)	(A) 98,1MHz 1kHz,±75kHz Hub 60dB(ANT-Eingang)	(B)	MODE: MONO 98,1MHz	L8	Minimal Klirrfaktor.	(b)
Abstimmungen 4 und 5 mehrere Male wiederholen.							
6	SPANNUNGS-GEREGELTER OSZILLATOR	(A) 98,1MHz 0 Hub 60dB(ANT-Eingang)	Einen 330kΩ Wider-standen zu TP3 anschließen. Einen Frequenzzähler über einen Wechselspannungs messer an den Wider-stand anschließen.	98,1MHz	VR1	76,00kHz	(c)
7	KLIRRFAKTOR (STEREO)	(C) 98,1MHz 1kHz,±68,25kHz Hub Wähler:L oder R Pilotten: ±6,75kHz Hub 60dB(ANT-Eingang)	(B)	98,1MHz	L5	Minimal Klirrfaktor.	
8	UKW HALT PEGEL	(A) 98,1MHz 1kHz,±75kHz Hub 14dB(ANT-Eingang)	TUNE LED	98,1MHz	VR3	Den Regelwiderstand VR3 so einstellen, deß der TUNE LED anzeiger nicht leuchtet. Dann der Regelwi-deratand VR3 aufdrehen, und dem VR3 Halt geben wobei den TUNE LED anzeiger leuchtet wird.	
MW-EMPFANGSABTEILUNG Die MW-Rahmenantenne angebracht lassen. SELECTOR: AM							
(1)	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	530kHz (531kHz)	L14	1.5V	(a)
(2)	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	1610kHz (1602kHz)	TC3	8.0V	(a)
(3)	HF-ABGLEICH (1)	(D) 630kHz 400Hz,30% mod	(B)	630kHz	L13	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
(4)	HF-ABGLEICH (2)	(D) 1440kHz 400Hz,30% mod	(B)	1440kHz	TC2	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
Abstimmungen (3) und (4) mehrere Male wiederholen.							

ABGLEICH

KT-42L

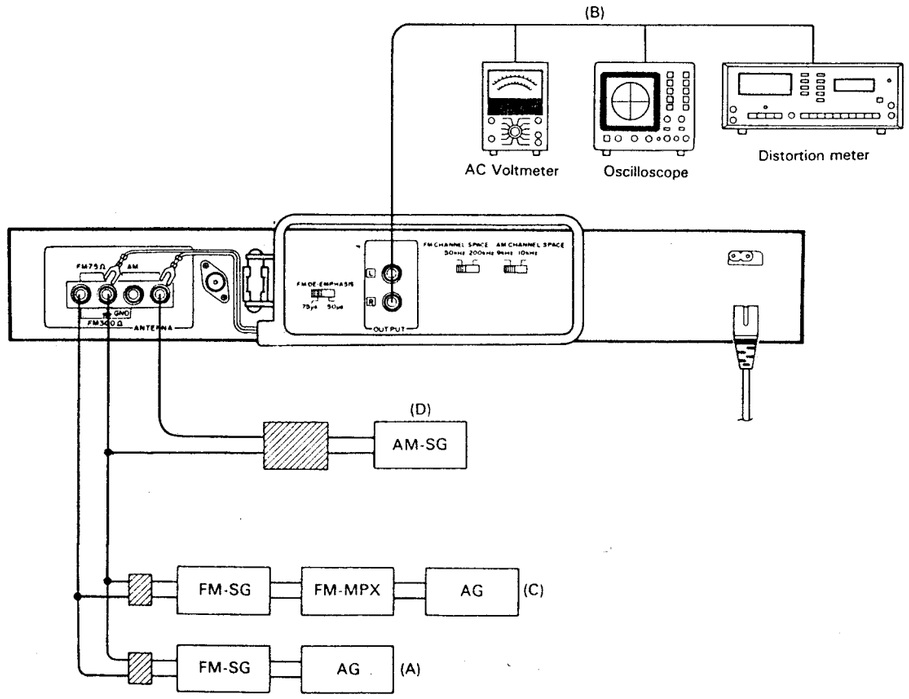
NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-EMPFANGSABTEILUNG Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen: SELECTOR: FM MODE: AUTO							
1	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	87,9MHz	L6	2,5V	(a)
2	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	107,9MHz	TC1	8,0V	(a)
Abstimmungen 1 und 2 mehrere Male wiederholen.							
3	EMPFANGS-BEREICH-ABSTIMMUNGEN	(A) 98,1MHz 1kHz,±40kHz Hub	(B)	MODE: MONO 98,1MHz	L1.2.3	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
4	DISKRIMINATOR (1)	(A) 98,1MHz 1kHz,±40kHz Hub 60dB(ANT-Eingang)	Einen Gleichspannungs-messer zwischen TP1 und TP2 anschließen.	MODE: MONO 98,1MHz	L7	0 V	(b)
5	DISKRIMINATOR (2)	(A) 98,1MHz 1kHz,±40kHz Hub 60dB(ANT-Eingang)	(B)	MODE: MONO 98,1MHz	L8	Minimal Klirrfaktor.	(b)
Abstimmungen 4 und 5 mehrere Male wiederholen.							
6	SPANNUNGS-GEREGELTER OSZILLATOR	(A) 98,1MHz 0 Hub 60dB(ANT-Eingang)	Einen 330kΩ Wider-standen zu TP3 anschließen. Einen Frequenzzähler über einen Wechselspannungs messer an den Wider-stand anschließen.	98,1MHz	VR1	76,00kHz	(c)
7	KLIRRFAKTOR (STEREO)	(C) 98,1MHz 1kHz,±40kHz Hub Wähler:L oder R Pilotten: ±6kHz Hub 60dB(ANT-Eingang)	(B)	98,1MHz	L5	Minimal Klirrfaktor.	
8	STEREO KANAL TRENNUNG	(C) 98,1MHz 1kHz,±40kHz Hub Wähler:L oder R Pilotten: ±6kHz Hub 60dB(ANT-Eingang)	(B)	98,1MHz	VR2	Minimales Übersprechen.	
9	UKW HALT PEGEL	(A) 98,1MHz 1kHz,±40kHz Hub 14dB(ANT-Eingang)	TUNE LED	98,1MHz	VR3	Den Regelwiderstand VR3 so einstellen, deß der TUNE LED anzeiger nicht leuchtet. Dann der Regelwi-deratand VR3 aufdrehen, und dem VR3 Halt geben wobei den TUNE LED anzeiger leuchtet wird.	

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FUR	ABB.
MW-EMPFANGSABTEILUNG			Die MW-Rahmenantenne angebracht lassen.		SELECTOR: AM		
(1)	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	530kHz (531kHz)	L14	1.5V	(a)
(2)	BANDKANTE	–	Einen Gleichspannungs-messer zu TP5 anschließen.	1610kHz (1602kHz)	TC3	8.0V	(a)
(3)	HF-ABGLEICH (1)	(D) 630kHz 400Hz.30% mod	(B)	630kHz	L13	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
(4)	HF-ABGLEICH (2)	(D) 1440kHz 400Hz.30% mod	(B)	1440kHz	TC2	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
Abstimmungen (3) und (4) mehrere Male wiederholen.							
LW-EMPFANGSABTEILUNG			Die MW-Rahmenantenne angebracht lassen.		SELECTOR: LW		
(5)	BANDKANTE	–	Einen Gleichspannungs-messer zu TP4 anschließen.	155kHz	L18	1.5V	(a)
(6)	BANDKANTE	–	Einen Gleichspannungs-messer zu TP4 anschließen.	353kHz	TC5	8.0V	(a)
(7)	HF-ABGLEICH (1)	(D) 164kHz 400Hz.30% mod	(B)	164kHz	L16	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
(8)	HF-ABGLEICH (2)	(D) 308kHz 400Hz.30% mod	(B)	308kHz	TC4	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
Abstimmungen (7) und (8) mehrere Male wiederholen.							

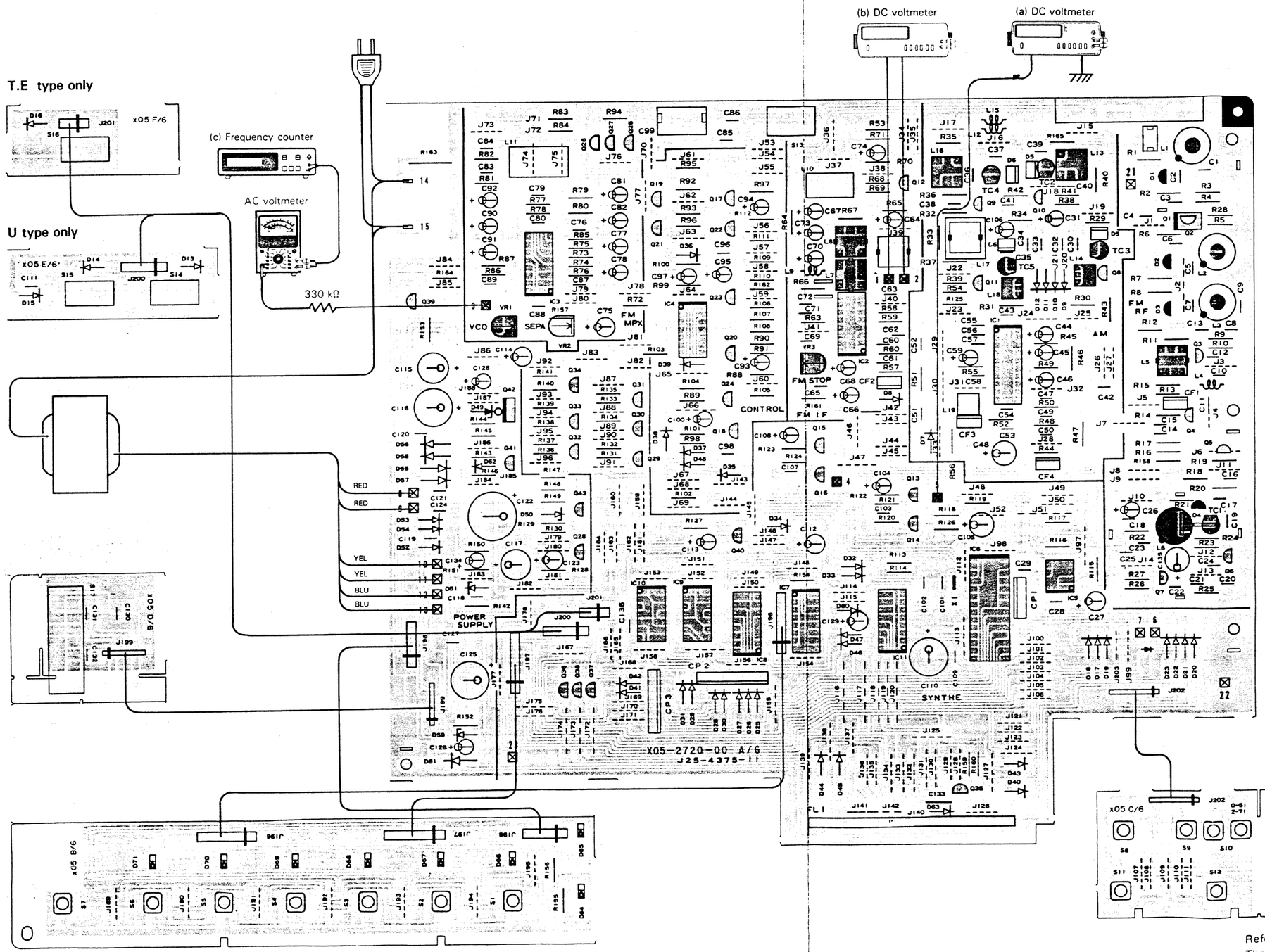
ADJUSTMENT / REGLAGES / ABGLEICH

TEST INSTRUMENT	APPAREILLAGE	PRÜFINSTRUMENTE	
Oscilloscope	Oscilloscope	Oszilloskop	SCOPE
AM signal generator	Générateur MA	MW-Signalgenerator	AM-SG
FM signal generator	Générateur MF	UKW-Signalgenerator	FM-SG
Audio generator	Générateur audio fréquences	NF-Signalgenerator	AG
AC voltmeter	Voltmètre CA	Wechselspannungsmesser	
FM multiplex generator	Générateur multiplex stéréo	UKW-Multiplexgenerator	FM-MPX
Frequency counter	Fréquencemètre	Frequenzzähler	
DC voltmeter	Voltmètre CC	Gleichspannungsmesser	
Distortion meter	Distorsiomètre	Klirrfaktormesser	
Dummy antenna	Antenne fictive	Antennennachbildung	



PC BOARD

TUNER UNIT (X05-2720-11) Component side view



IC1	
1	(2.9)
2	(2.3)
3	(2.8)
4	(0)
5	(9.1)
6	(2.1)
7	(9.4)
8	(9.4)
9	(2.8)
10	(8.3)
11	(0.7)
12	(0)
13	(3.0)
14	(10.6)
15	(1.5)
16	(5.4)
17	(3.0)
18	(5.5)
19	(5.5)
20	(2.7)

IC2	
1	2.9
2	2.9
3	2.9
4	0
5	0
6	5.6
7	5.6
8	5.6
9	5.6
10	5.6
11	10.8
12	0
13	5.5
14	0
15	0.7
16	1.0

IC3	
1	10.5
2	2.6
3	6.0
4	8.4
5	8.4
6	3.6
7	3.6
8	0
9	0.7
10	2.6
11	2.6
12	2.6
13	2.6
14	2.6
15	3.3
16	0

IC4	
1	12.1
2	0
3	0
4	12.1
5	11.5
6	0
7	0
8	12.1
9	0
10	0
11	11.9
12	12.1
13	0
14	12.1

IC6	
1	4.5
2	3.8
3	0
4	0
5	3.2
6	–
7	0
8	0

TRANSISTOR

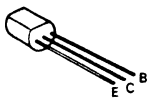
Q	E (S)	C (D)	B (G)
1	0	10.6	0
2	0	10.7	0
3	1.3	11.7	2.0
4	1.2	10.0	1.9
5	0	7.4	0
6	4.7	11.2	5.4
7	0	9.0	0.7
9	<0.4>	<4.2>	<0>
10	(4.2)	(9.3)	(3.4)
11	<3.7>	<9.3>	<4.3>
12	5.1	12.1	5.7
17	0	12.1	0
18	0	12.1	0
19	12.1	0	12.1
20	0	0.2	0.6
21	0	12.0	0
22	0	0	0.2
23	0	11.9	0
24	0	0.1	0.7
25	0	0	0
26	0	0	0
27	0	0	0
28	0	5.1	0
29	(12.1)	(12.0)	(11.4)
30	12.1	11.9	11.4
31	0	0	0.6
32	<12.1>	<12.0>	<11.4>
33	(12.1)	(12.0)	(11.4)
34	(0)	(0)	(0.6)
39	0	2.1	0
40	4.2	4.8	4.8
41	0	0.7	0
42	12.1	18.0	12.7
43	5.6	8.8	6.2

( ) = MW
< > = LW

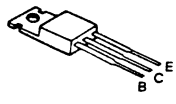
Refer to the schematic diagram for the values of resistors and capacitors.
The PC board drawing is viewing from the side easy to check.

KENWOOD

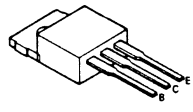
2SA733(A)
2SA999
2SC1675
2SC1923
2SC2320
2SC945 (A)
2SD1302
2SD863



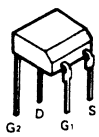
2SD330



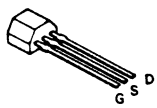
2SC2167



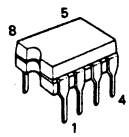
3SK73



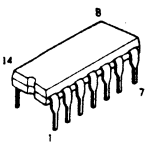
2SK161



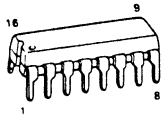
UPB553AC



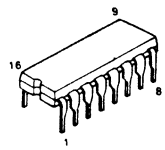
BU4011B
TC4011BP
TC4069UBP
UPD4011BC
UPD4069UBC



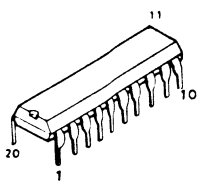
LA1231NS



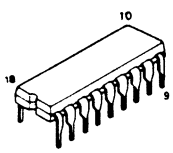
AN7470
UPA80C



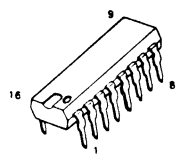
LA1245



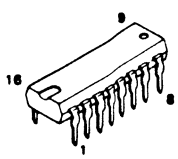
UPD4035BC



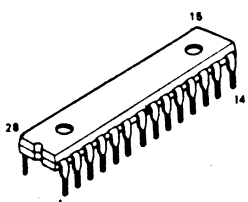
SN74LS42N



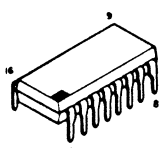
M74LS42P

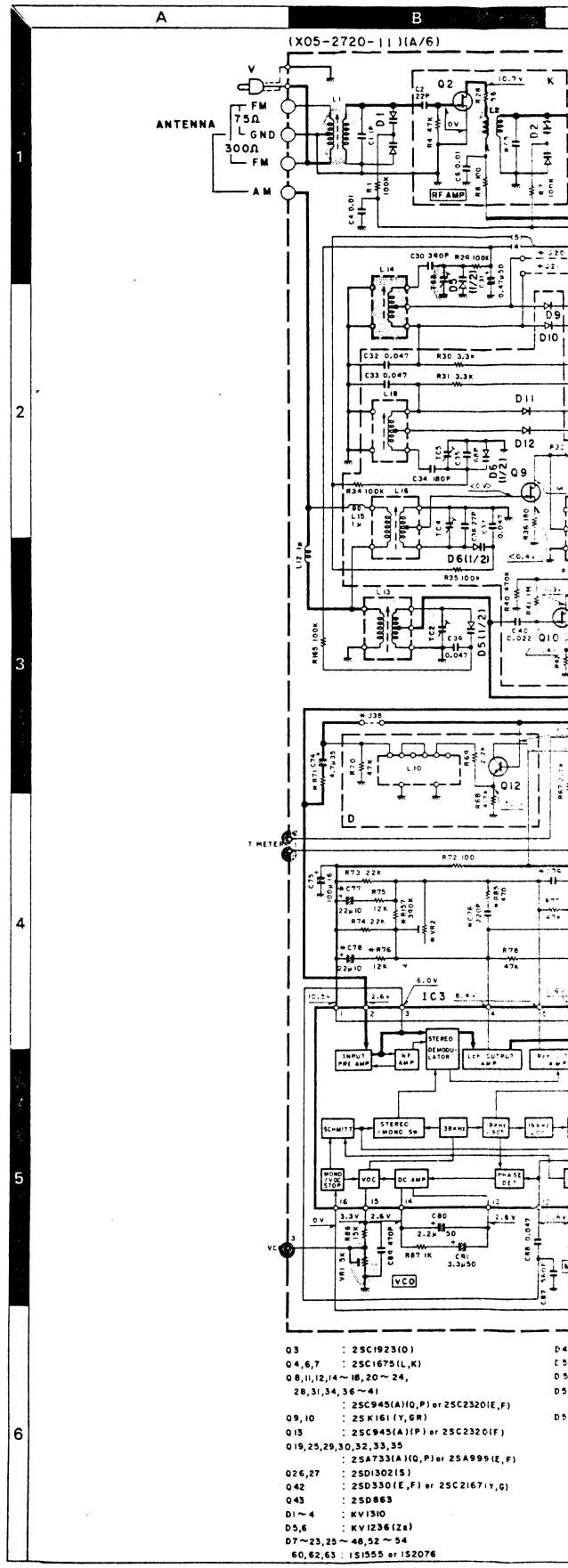


UPD1703C-532



MB74LS42M

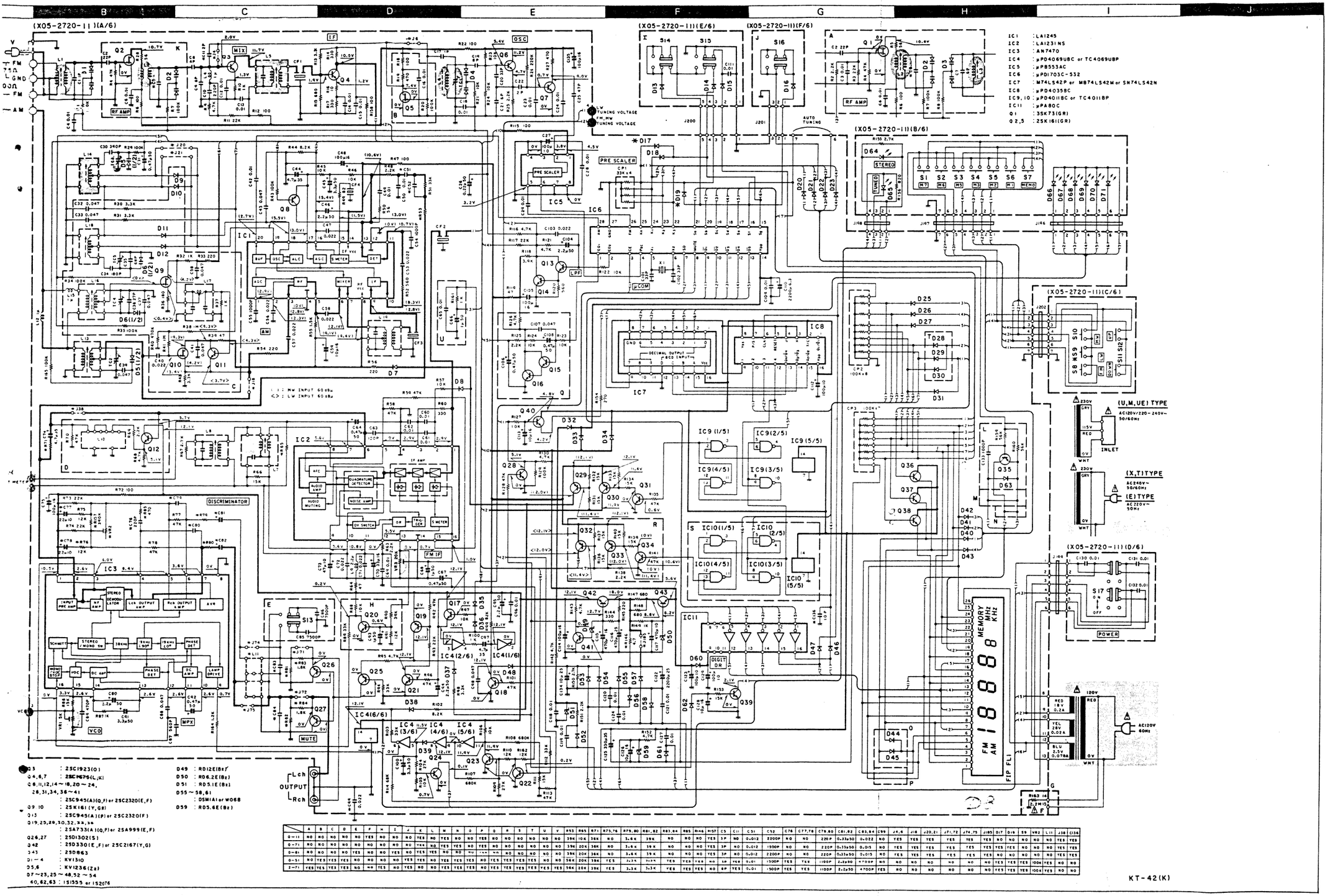




Q3 : 2SC1923(O)
Q4,6,7 : 2SC1675(L,K)
Q8,11,12,14～18,20～24, 28,31,34,36～41 : 2SC945(A)(Q,P) or 2SC2320(E,F)
Q9,10 : 2SK161(Y,GR)
Q13 : 2SC945(A)(P) or 2SC2320(F)
Q19,25,29,30,32,33,35 : 2SA733(A)(Q,P) or 2SA999(E,F)
Q26,27 : 2SD1302(S)
Q42 : 2SD330(E,F) or 2SC2167(Y,G)
Q43 : 2SD863
D1～4 : KV1310
D5,6 : KV1236(Za)
D7～23,25～48,52～54 60,62,63 : 1S1555 or 1S2076
D4
D5
D5
D5
D5

QUARTZ SYNTHESIZER STEREO TUNER

KT-42(



Specifications

FM Tuner Section

Usable Sensitivity	10.8 dBf (0.95 μV)
50 dB Quieting Sensitivity	
Mono	14.5 dBf (3 μV)
Stereo	37.2 dBf (40 μV)
Signal-to-Noise Ratio at 65 dBf	
Mono	76 dB
Stereo	70 dB
Total Harmonic Distortion at 1 kHz	
Mono	0.1%
Stereo	0.15%
Frequency Response	30 Hz to 15 kHz +0.5 dB, −2.5 dB
Capture Ratio	1.5 dB
Image Rejection Ratio	40 dB
Spurious Response Ratio	75 dB
IF Rejection Ratio	95 dB
Alternate Channel Selectivity	50 dB
AM Suppression Ratio	65 dB
Stereo Separation Ratio	45 dB at 1 kHz 35 dB at 50 Hz to 10 kHz
Antenna Impedance	300 ohms balanced and 75 ohms unbalanced
Output Level at 1 kHz, 100% Mod	0.6V, 3.3 kohms
FM Frequency Range	87.9 MHz ~ 107.9 MHz (200kHz) 87.5 MHz ~ 108 MHz (50k

AM Tuner Section

Usable Sensitivity	10 μV
Signal-to-Noise Ratio	50 dB
Total Harmonic Distortion	0.4%
Image Rejection Ratio	40 dB
Output Level	0.18V, 3.3 kohms
AM Frequency Range	530 kHz ~ 1,610 kHz (10kH 531 kHz ~ 1,602 kHz (9 kH

General

Power Requirements	60 Hz 120V (U.S.A. and Canada model(s) or 50/60 Hz 110-120/220-240V, Switchable
Power Consumption	6W
Dimensions	W: 420 mm (16-17/32") H: 72 mm (2-27/32") D: 282 mm (11-3/32")
Weight (Net)	2.8 kg (6.2 lb)

Kenwood follows a policy of continuous advancement in development. For this reason specifications may b changed without notice.

Kenwood poursuit une politique de progrès constants e ce qui doncerne le développement. Pour cette raison, le spécifications sont sujettes à modifications sans préavis.

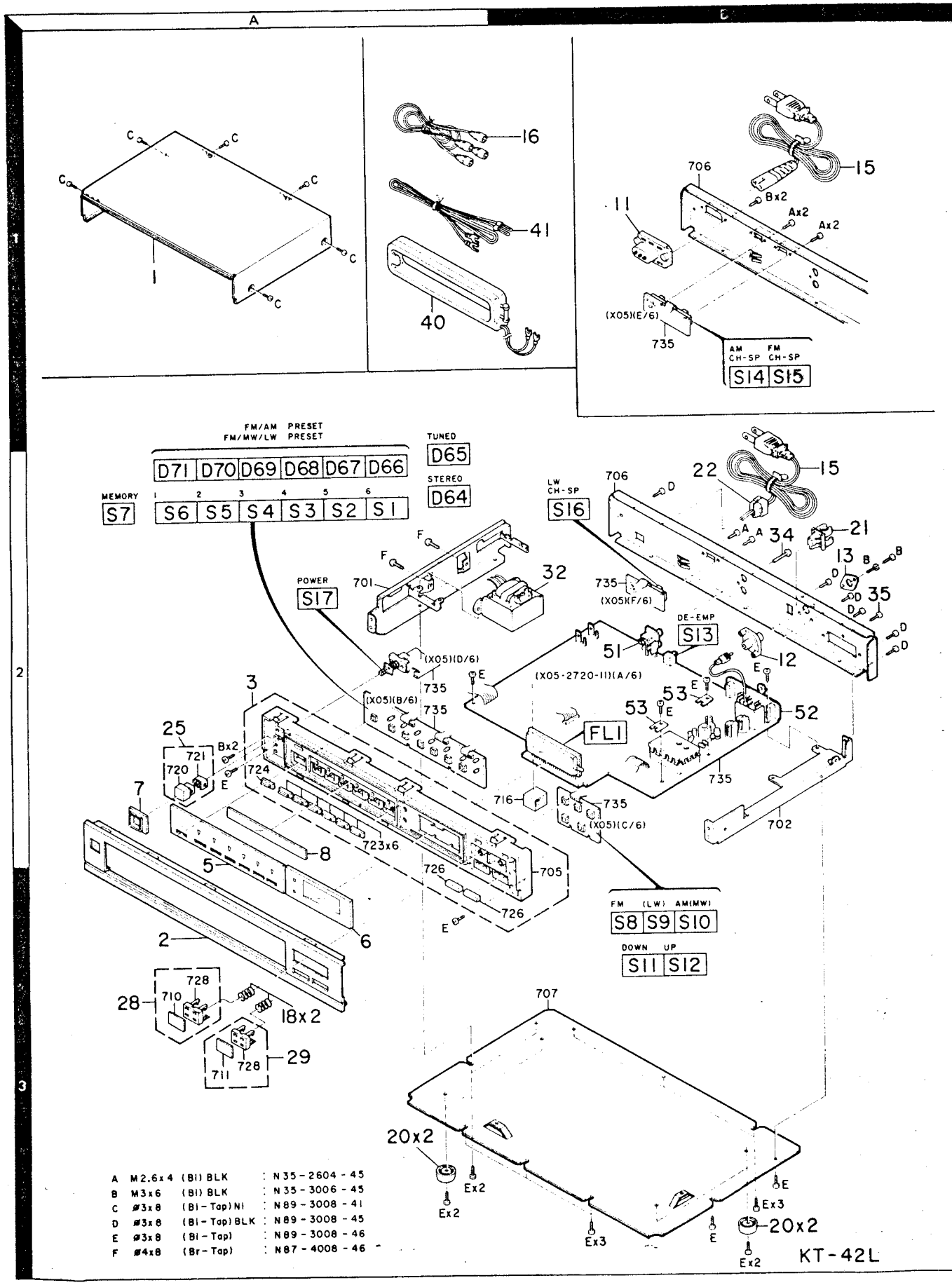
Kenwood strebt ständige, Verbesserungen in der En wicklung an. Daher bleiben Änderungen der technische Daten jederzeit vorbehalten.

CAUTION: For continued safety, replace safet critical components only with manufacturer' recommended parts (refer to parts list). ⚠ In dicates safety critical components. To reduce th risk of electric shock, leakage-current or resistanc measurements shall be carried out (exposed part are acceptably insulated from the supply circuit before the appliance is returned to the customer.

DC voltages are as measured with a high-impedan voltmeter during reception of the FM broadcast sign (with a signal strength of 60 dB at the ANT terminal Values may vary slightly due to variations between in dividual instruments or/and units. Values in pare theses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at th ANT terminal).

EXPLODED VIEW

Parts with the exploded numbers larger than 700 are not supplied.



A	M2.6x4	(Bl) BLK	: N35-2604-45
B	M3x6	(Bl) BLK	: N35-3006-45
C	ø3x8	(Bl-Tap)Ni	: N89-3008-41
D	ø3x8	(Bl-Tap)BLK	: N89-3008-45
E	ø3x8	(Bl-Tap)	: N89-3008-46
F	ø4x8	(Br-Tap)	: N87-4008-46

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KT-42/B/42L/42LB			
1	1A		A01-0650-02	METALLIC CABINET		S
1	1A		A01-0689-02	METALLIC CABINET		B
2	3A	*	A20-3875-02	PANEL	KPUM	S
2	3A	*	A20-3875-02	PANEL	UEX	S
2	3A	*	A20-3876-02	PANEL	T	S
2	3A	*	A20-3877-02	PANEL	E	S
2	3A	*	A20-3976-02	PANEL	KPUM	B
2	3A	*	A20-3976-02	PANEL	UEX	B
2	3A	*	A20-3977-02	PANEL	T	B
2	3A	*	A20-3978-02	PANEL	E	B
3	2A	*	A22-0448-03	SUB PANEL ASSY		S
3	2A	*	A22-0450-03	SUB PANEL ASSY		B
5	2A	*	B03-1334-03	DRESSING PLATE(FM/AM PRESET)	KPUM	S
5	2A	*	B03-1334-03	DRESSING PLATE(FM/AM PRESET)	UEX	S
5	2A	*	B03-1459-03	DRESSING PLATE(FM/MW/LW PRESET	TE	S
5	2A	*	B03-1462-03	DRESSING PLATE(FM/AM PRESET)	KPUM	B
5	2A	*	B03-1462-03	DRESSING PLATE(FM/AM PRESET)	UEX	B
5	2A	*	B03-1463-03	DRESSING PLATE(FM/MW/LW PRESET	TE	B
6	3A	*	B03-1460-04	DRESSING PLATE(TUNED,ST,FREQ)		S
6	3A	*	B03-1464-04	DRESSING PLATE(TUNED,ST,FREQ)		B
7	2A		B07-1185-04	ESCUTCHEON (POWER)		S
7	2A		B07-1248-04	ESCUTCHEON (POWER)		B
8	2A		B11-0053-04	SMOKED FILTER (PRESET ARROW)		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0093-03	WARRANTY CARD	P	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-03	WARRANTY CARD	X	
-			B46-0097-03	WARRANTY CARD	T	
-			B46-0098-03	WARRANTY CARD	E	
-		*	B50-5245-00	INSTRUCTION MANUAL(ENGLISH)	KPUM	
-		*	B50-5245-00	INSTRUCTION MANUAL(ENGLISH)	UEX	
-		*	B50-5246-00	INSTRUCTION MANUAL(FRENCH)	PMX	
-		*	B50-5247-00	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B50-5248-00	INSTRUCTION MANUAL(ENGLISH)	T	
-		*	B50-5249-00	INSTRUCTION MANUAL(F,G,D,SW,I)	E	
-			B58-0223-04	CAUTION CARD	U	
-			B58-0245-23	CAUTION CARD	E	
-			B58-0269-04	CAUTION CARD	K	
-			B58-0513-04	CAUTION CARD	UE	
-			B59-0092-00	SERVICE DIRECTORY	UUE	
⚠ 11	1B		E03-0102-15	AC INLET	UMUE	
12	2B		E04-0006-05	RF COAXIAL CABLE RECEPTACLE	E	
13	2B		E29-0130-04	LEAD PLATE	E	
⚠ 15	1B,2B		E30-0181-05	AC POWER CORD	KP	
⚠ 15	1B,2B		E30-0459-05	AC POWER CORD	E	
⚠ 15	1B,2B		E30-0587-15	AC POWER CORD	T	
⚠ 15	1B,2B		E30-1305-15	AC POWER CORD (INLET)	UMUE	
⚠ 15	1B,2B		E30-1341-05	AC POWER CORD	X	
16	1B		E30-0505-05	AUDIO CORD		

E: Scandinavia & Europe H: Audio Club K: USA P: Canada
S: South Africa T: England U: PX(Far East, Hawaii)
UE: AAFES(Europe) X: Australia M: Other Areas

Remarks: S: KT-42 , KT-42L
B: KT-42B, KT-42LB

⚠ indicates safety critical components.

PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
18	3A		G01-0434-04	COMPRESSION SPRING		
-		*	H01-5170-04	ITEM CARTON CASE	KPUM	S
-		*	H01-5170-04	ITEM CARTON CASE	UEX	S
-		*	H01-5171-04	ITEM CARTON CASE	T	S
-		*	H01-5172-04	ITEM CARTON CASE	E	S
-		*	H01-5180-04	ITEM CARTON CASE	KPUM	B
-		*	H01-5180-04	ITEM CARTON CASE	UEX	B
-		*	H01-5181-04	ITEM CARTON CASE	T	B
-		*	H01-5182-04	ITEM CARTON CASE	E	B
-			H10-1685-03	POLYSTYRENE FOAMED FIXTURE		
-			H25-0078-04	PROTECTION BAG		
-			H25-0215-04	PROTECTION BAG		
20	3A,3B		J02-0130-05	FOOT		
21	2B		J19-0626-12	ANTENNA HOLDER		
⚠ 22	1B,2B		J42-0083-05	POWER CORD BUSHING	KPXTE	
-			J61-0307-05	WIRE BAND		
25	2A		K29-1446-04	KNOB ASSY(POWER)		
28	3A		K29-1504-04	KNOB ASSY(FM)		B
28	3A	*	K29-1776-04	KNOB ASSY(FM)		S
29	3A		K29-1505-04	KNOB ASSY(AM)	KPUM	B
29	3A		K29-1505-04	KNOB ASSY(AM)	UEX	B
29	3A		K29-1522-04	KNOB ASSY(LW/MW)	TE	B
29	3A	*	K29-1777-04	KNOB ASSY(AM)	KPUM	S
29	3A	*	K29-1777-04	KNOB ASSY(AM)	UEX	S
29	3A	*	K29-1778-04	KNOB ASSY(LW/MW)	TE	S
⚠ 32	2B		L01-3621-05	POWER TRANSFORMER	KP	
⚠ 32	2B		L01-3622-05	POWER TRANSFORMER	XTE	
⚠ 32	2B		L01-3624-05	POWER TRANSFORMER	UMUE	
34	2B		N09-0292-05	STEPPED SCREW(PHONO JACK)	E	
35	2B		N09-1280-05	TAPTITE SCREW(ANTENNA TERMINAL		
40	1A		T90-0104-15	LOOP ANTENNA	KPUM	
40	1A		T90-0104-15	LOOP ANTENNA	UEX	
40	1A		T90-0128-05	LOOP ANTENNA	TE	
41	1B		T90-0132-05	T TYPE ANTENNA		
TUNER UNIT (X05-2720-11)						
D64	2A		B30-0431-05	LED(LN21CPH)FM STEREO		
D65	2A		B30-0432-05	LED(LN31GCPH(U))TUNED		
D66 -71	2A		B30-0431-05	LED(LN21CPH)PRESET STATION		
C1			CC45FSL1H010C	CERAMIC 1.0PF C		
C2			CC45FSL1H220J	CERAMIC 22PF J		
C3 ,4			C91-0083-05	CERAMIC 0.01UF N	E	
C4			C91-0083-05	CERAMIC 0.01UF N	KPUM	
C4			C91-0083-05	CERAMIC 0.01UF N	UEXT	
C5			CC45FSL1H030C	CERAMIC 3.0PF C	KPUM	
C5			CC45FSL1H030C	CERAMIC 3.0PF C	UEXT	
C5			CC45FSL1H080D	CERAMIC 8.0PF D	E	
C6			C91-0083-05	CERAMIC 0.01UF N		
C7			CC45FSL1H060D	CERAMIC 6.0PF D	E	
C8			CC45FSL1H040C	CERAMIC 4.0PF C		
C9			CC45FSL1H060D	CERAMIC 6.0PF D		
C10			CC45FSL1H221J	CERAMIC 220PF J		
C11			CC45FSL1H020C	CERAMIC 2.0PF C	TE	

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Remarks: S: KT-42 , KT-42L
B: KT-42B, KT-42LB

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C12 -15			C91-0083-05	CERAMIC	0.01UF	N		
C16			CK45FF1H103Z	CERAMIC	0.01UF	Z	TE	
C17			CC45FCH1H010C	CERAMIC	1.0PF	C		
C18			C91-0083-05	CERAMIC	0.01UF	N		
C19			CC45FSL1H080D	CERAMIC	8.0PF	D		
C20			CC45FSL1H330J	CERAMIC	33PF	J		
C21			CC45FSL1H060D	CERAMIC	6.0PF	D		
C22			CC45FSL1H020C	CERAMIC	2.0PF	C		
C23 ,24			C91-0083-05	CERAMIC	0.01UF	N		
C25			CC45FSL1H470J	CERAMIC	47PF	J		
C26			CE04GW1HR22M	LL-ELEC	0.22UF	50WV		
C27			CE04FW1A101M	ELECTRO	100UF	10WV		
C28 ,29			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C30			CQ09FS1H391JYO	POLYSTY	390PF	J		
C31			CE04GW1HR47M	LL-ELEC	0.47UF	50WV		
C32 ,33			CK45FF1H473Z	CERAMIC	0.047UF	Z	TE	
C34			CQ09FS1H181JYO	POLYSTY	180PF	J	TE	
C35			CC45FCH1H680J	CERAMIC	68PF	J	TE	
C36		*	CC45FTH1H270J	CERAMIC	27PF	J	TE	
C37 -39			CK45FF1H473Z	CERAMIC	0.047UF	Z	TE	
C39			CK45FF1H473Z	CERAMIC	0.047UF	Z	KPUM	
C39			CK45FF1H473Z	CERAMIC	0.047UF	Z	UEX	
C40			CK45FF1H223Z	CERAMIC	0.022UF	Z	TE	
C41			CK45FF1H473Z	CERAMIC	0.047UF	Z	TE	
C42			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C43			CK45FF1H473Z	CERAMIC	0.047UF	Z		
C44			CE04FW1V4R7M	ELECTRO	4.7UF	35WV		
C45			CE04FW1H3R3M	ELECTRO	3.3UF	50WV		
C46			CE04FW1H2R2M	ELECTRO	2.2UF	50WV		
C47			CK45FF1H223Z	CERAMIC	0.022UF	Z		
C48			CE04FW1C101M	ELECTRO	100UF	16WV		
C49 ,50			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C51			CF92FV1H103J	MF	0.010UF	J	TE	
C51			CF92FV1H123J	MF	0.012UF	J	KPUM	
C51			CF92FV1H123J	MF	0.012UF	J	UEX	
C52			CF92FV1H152J	MF	1500PF	J	XTE	
C52			CF92FV1H222J	MF	2200PF	J	KPUM	
C52			CF92FV1H222J	MF	2200PF	J	UE	
C53			CK45FF1H223Z	CERAMIC	0.022UF	Z		
C54			CK45FB1H102K	CERAMIC	0.001UF	K		
C55			CK14B1H102K	CERAMIC	0.001UF	K		
C56 -58			C91-0085-05	CERAMIC	0.022UF	N		
C59			CE04FW1C100M	ELECTRO	10UF	16WV		
C60 -62			C91-0083-05	CERAMIC	0.01UF	N		
C63			CC45FSL1H101J	CERAMIC	100PF	J		
C64			CE04FW1HR47M	ELECTRO	0.47UF	50WV		
C65			C91-0083-05	CERAMIC	0.01UF	N	E	
C66			CE04FW1H010M	ELECTRO	1UF	50WV	E	
C67			CE04FW1HR47M	ELECTRO	0.47UF	50WV		
C68			CE04FW1H010M	ELECTRO	1UF	50WV		
C69			C91-0083-05	CERAMIC	0.01UF	N		
C70			CE04FW1C330M	ELECTRO	33UF	16WV		
C71 ,72			C91-0085-05	CERAMIC	0.022UF	N		
C73			CE04FW1A470M	ELECTRO	47UF	10WV		
C74			CE04FW1V4R7M	ELECTRO	4.7UF	35WV		

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C75			CE04FW1C101M	ELECTRO	100UF	16WV		
C76			CC45FSL1H221J	CERAMIC	220PF	J	TE	
C77 ,78			CE04FW1A220M	ELECTRO	22UF	10WV	TE	
C79 ,80			CC45FSL1H221J	CERAMIC	220PF	J	KPUM	
C79 ,80			CC45FSL1H221J	CERAMIC	220PF	J	UEX	
C79 ,80			CF92FV1H112J	MF	1100PF	J	TE	
C81 ,82			CE04FW1HR33M	ELECTRO	0.33UF	50WV	KPUM	
C81 ,82			CE04FW1HR33M	ELECTRO	0.33UF	50WV	UEX	
C81 ,82			CE04FW1H2R2M	ELECTRO	2.2UF	50WV	TE	
C83 ,84			CF92FV1H153J	MF	0.015UF	J	UMUEX	
C83 ,84			CF92FV1H223J	MF	0.022UF	J	KP	
C83 ,84			CF92FV1H472J	MF	4700PF	J	TE	
C85 ,86			CF92FV1H752J	MF	7500PF	J	UMUE	
C87			CK45FB1H561K	CERAMIC	560PF	K		
C88			CF92FV1H473J	MF	0.047UF	J		
C89			CQ09FS1H471JYO	POLYSTY	470PF	J		
C90			CE04FW1H2R2M	ELECTRO	2.2UF	50WV		
C91			CE04FW1H3R3M	ELECTRO	3.3UF	50WV		
C92			CE04FW1HR47M	ELECTRO	0.47UF	50WV		
C93			CE04FW1H010M	ELECTRO	1UF	50WV	E	
C94 ,95			CE04FW1H2R2M	ELECTRO	2.2UF	50WV		
C96			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C97			CE04FW1V4R7M	ELECTRO	4.7UF	35WV		
C98			CK45FF1H473Z	CERAMIC	0.047UF	Z		
C99			CK45F1H223Z	CERAMIC	0.022UF	Z	E	
C100			CE04FW1H3R3M	ELECTRO	3.3UF	50WV		
C101,102			CC45FCH1H330J	CERAMIC	33PF	J		
C103			CF92FV1H223J	MF	0.022UF	J		
C104			CE04GW1H2R2M	LL-ELEC	2.2UF	50WV		
C105			CE04FW1C101M	ELECTRO	100UF	16WV		
C106			CE04GW1HR47M	LL-ELEC	0.47UF	50WV	TE	
C107			CF92FV1H473J	MF	0.047UF	J	TE	
C108			CE04GW1HR47M	LL-ELEC	0.47UF	50WV	TE	
C109			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C110			CE04FW0J222M	ELECTRO	2200UF	6.3WV		
C111			CK45FF1H103Z	CERAMIC	0.01UF	Z	UMUE	
C112			CE04FW1A101M	ELECTRO	100UF	10WV		
C113			CE04FW1C100M	ELECTRO	10UF	16WV		
C114			CE04FW1C101M	ELECTRO	100UF	16WV		
C115			CE04FW1C471M	ELECTRO	470UF	16WV		
C116			CE04FW1E471M	ELECTRO	470UF	25WV		
C117			CE04FW1A471M	ELECTRO	470UF	10WV		
C118-121			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C122			CE04FW1E222M	ELECTRO	2200UF	25WV		
C123			CE04FW1A101M	ELECTRO	100UF	10WV		
C124			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C125			CE04FW1V331M	ELECTRO	330UF	35WV		
C126			CE04FW1C100M	ELECTRO	10UF	16WV		
C127			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C128			CE04FW1C100M	ELECTRO	10UF	16WV		
C129			CE04FW1A101M	ELECTRO	100UF	10WV		
C130-132			CK45FF1H103Z	CERAMIC	0.01UF	Z		
C133			CK14B1H102K	CERAMIC	0.001UF	K	UMUE	
C134			CE04FW1E100M	ELECTRO	10UF	25WV		
C135			CE04FW1C101M	ELECTRO	100UF	16WV		

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C136			CC45FSL1H100D	CERAMIC 10PF D	KPUM	
C136			CC45FSL1H100D	CERAMIC 10PF D	UEX	
TC1			C05-0302-05	CERAMIC TRIMMER CAPACITOR(11PF		
TC2 ,3			C05-0303-05	CERAMIC TRIMMER CAPACITOR(20PF		
TC4 ,5			C05-0097-05	CERAMIC TRIMMER CAPACITOR(30PF	TE	
51	2B		E13-0217-05	PHONO JACK(OUTPUT)		
52	2B		E20-0452-05	SCREW TERMINAL BOARD(ANTENNA)		
53	2B		E23-0125-05	TERMINAL(GND PLATE)		
CF1			L72-0190-05	CERAMIC FILTER	TE	
CF1 ,2			L72-0140-05	CERAMIC FILTER	KPUM	
CF1 ,2			L72-0140-05	CERAMIC FILTER	UEX	
CF2			L72-0195-05	CERAMIC FILTER	TE	
CF3			L72-0099-05	CERAMIC FILTER		
CF4			L72-0096-05	CERAMIC FILTER		
L1			L31-0475-05	FM-RF COIL		
L2			L31-0492-05	FM-RF COIL	KPUM	
L2			L31-0492-05	FM-RF COIL	UEXT	
L2 ,3			L31-0476-05	FM-RF COIL	E	
L4			L40-1092-14	SMALL FIXED INDUCTOR(1UH)		
L5			L30-0326-05	FM IFT		
L6			L32-0270-05	FM OSCILLATING COIL		
L7			L30-0373-05	FM IFT		
L8			L30-0411-05	FM IFT		
L9			L40-2292-14	SMALL FIXED INDUCTOR(2.2UH)		
L10			L79-0125-05	LC FILTER	TE	
L11			L79-0154-05	LC FILTER	TE	
L12			L40-1092-14	SMALL FIXED INDUCTOR(1UH)	KPUM	
L12			L40-1092-14	SMALL FIXED INDUCTOR(1UH)	UEX	
L13		*	L31-0509-05	MW-RF COIL		
L14			L32-0277-15	MW OSCILLATING COIL		
L15			L40-1092-14	SMALL FIXED INDUCTOR(1UH)	TE	
L16		*	L31-0505-05	LW-RF COIL	TE	
L17			L79-0074-05	LC FILTER	TE	
L18		*	L32-0299-05	LW OSCILLATING COIL	TE	
L19			L30-0362-05	AM IFT		
X1			L77-0573-05	CRYSTAL RESONATOR		
CP1			R90-0277-05	MULTIPLE RESISTOR		
CP2		*	R90-0294-05	MULTIPLE RESISTOR(47K)		
CP3			R90-0278-05	MULTIPLE RESISTOR		
R6			RD14GB2E101J	FL-PROOF RD 100 J 2E	TE	
R12			RD14GB2E101J	FL-PROOF RD 100 J 2E	TE	
R18			RD14GB2E101J	FL-PROOF RD 100 J 2E	TE	
R22			RD14AB2E101J	FL-PROOF RD 100 J 2E	TE	
R47			RD14AB2E101J	FL-PROOF RD 100 J 2E	TE	
R64			RD14AB2E470J	FL-PROOF RD 47 J 2E		
R72			RD14AB2E101J	FL-PROOF RD 100 J 2E	TE	
R119			RD14GB2E470J	FL-PROOF RD 47 J 2E		
R145			RD14AB2E221J	FL-PROOF RD 220 J 2E	TE	
R146			R92-0514-05	FUSE RESIST 4.7 2E	TE	
R147,148		*	RD14AB2E681J	FL-PROOF RD 680 J 2E	TE	
R158			RD14GB2E101J	FL-PROOF RD 100 J 2E	TE	
△ R163			R92-0173-05	RC 2.2M M 2H	KP	
VR1			R12-2305-05	TRIMMING POT(5K) VCO		
VR2			R12-5309-05	TRIMMING POT(100K)SEPARATION	TE	

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VR3			R12-3313-05	TRIMMING POT(20K) TUNED LED		
S1 -12	2A,3B		S40-1068-05	PUSH SWITCH	TE	
S1 -8	2A,3B		S40-1068-05	PUSH SWITCH	KPUM	
S1 -8	2A,3B		S40-1068-05	PUSH SWITCH	UEX	
S10 -12	3B		S40-1068-05	PUSH SWITCH	KPUM	
S10 -12	3B		S40-1068-05	PUSH SWITCH	UEX	
S13	2B		S31-2069-05	SLIDE SWITCH(DE-EMPHASIS)	UMUE	
S14 ,15	1B		S31-2056-05	SLIDE SWITCH(AM/FM CH-SPACE)	UMUE	
S16	2B		S31-2056-05	SLIDE SWITCH(LW CH-SPACE)	TE	
S17	2A		S40-4056-05	PUSH SWITCH (POWER)		
D1 -4		*	KV1310-4	VARIABLE CAPACITANCE DIODE	E	
D1 ,2			KV1310-3	VARIABLE CAPACITANCE DIODE	KPUM	
D1 ,2			KV1310-3	VARIABLE CAPACITANCE DIODE	UEXT	
D4			KV1310-3	VARIABLE CAPACITANCE DIODE	KPUM	
D4			KV1310-3	VARIABLE CAPACITANCE DIODE	UEXT	
D5			KV1236(Z2)	VARIABLE CAPACITANCE DIODE	KPUM	
D5			KV1236(Z2)	VARIABLE CAPACITANCE DIODE	UEX	
D5 ,6			KV1236(Z2)	VARIABLE CAPACITANCE DIODE	TE	
D7 -12			1S1555	DIODE	TE	
D7 -12			1S2076	DIODE	TE	
D7 ,8			1S1555	DIODE	KPUM	
D7 ,8			1S1555	DIODE	UEX	
D7 ,8			1S2076	DIODE	KPUM	
D7 ,8			1S2076	DIODE	UEX	
D13 -15			1S1555	DIODE	UMUE	
D13 -15			1S2076	DIODE	UMUE	
D16 ,17			1S1555	DIODE	TE	
D16 ,17			1S2076	DIODE	TE	
D17			1S1555	DIODE	X	
D17			1S2076	DIODE	X	
D19 -23			1S1555	DIODE	XTE	
D19 -23			1S2076	DIODE	XTE	
D20 -23			1S1555	DIODE	KPUM	
D20 -23			1S1555	DIODE	UE	
D20 -23			1S2076	DIODE	KPUM	
D20 -23			1S2076	DIODE	UE	
D25 -27			1S1555	DIODE	KPUM	
D25 -27			1S1555	DIODE	UEX	
D25 -27			1S2076	DIODE	KPUM	
D25 -27			1S2076	DIODE	UEX	
D25 -48			1S1555	DIODE	TE	
D25 -48			1S2076	DIODE	TE	
D31 -43			1S1555	DIODE	KPUM	
D31 -43			1S1555	DIODE	UEX	
D31 -43			1S2076	DIODE	KPUM	
D31 -43			1S2076	DIODE	UEX	
D46 -48			1S1555	DIODE	KPUM	
D46 -48			1S1555	DIODE	UEX	
D46 -48			1S2076	DIODE	KPUM	
D46 -48			1S2076	DIODE	UEX	
D49			RD12E(B2)	ZENER DIODE		
D50			RD6.2E(B2)	ZENER DIODE		
D51			RD5.1E(B2)	ZENER DIODE		
D52 -54			1S1555	DIODE		

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D52 -54			1S2076	DIODE		
D55 -58			DSM1A1	DIODE		
D55 -58			W06B	DIODE		
D59			RD5.6E(B2)	ZENER DIODE		
D60			1S1555	DIODE		
D60			1S2076	DIODE		
D61			DSM1A1	DIODE		
D61			W06B	DIODE		
D62			1S1555	DIODE	KPXTE	
D62			1S2076	DIODE	KPXTE	
D62 ,63			1S1555	DIODE	UMUE	
D62 ,63			1S2076	DIODE	UMUE	
FL1	2B		FIP7D8	FLUORESCENT INDICATOR TUBE	KPUM	
FL1	2B		FIP7D8	FLUORESCENT INDICATOR TUBE	UEX	
FL1	2B		FIP7G8	FLUORESCENT INDICATOR TUBE	TE	
IC1			LA1245	IC AM		
IC2			LA1231NS	IC FM		
IC3			AN7470	IC MPX		
IC4			TC4069UBP	IC INVERTOR		
IC4			UPD4069UBC	IC INVERTOR		
IC5		*	UPB553AC	IC FM PRE SCALER		
IC6			UPD1703C-532	IC DIGITAL TUNING SYSTEM		
IC7			MB74LS42M	IC LED DRIVER		
IC7			M74LS42P	IC LED DRIVER		
IC7		*	SN74LS42N	IC LED DRIVER		
IC8			UPD4035BC	IC LED DRIVER		
IC9		*	BU4011B	IC NAND(FM/AM SW SIGNAL)	KPUM	
IC9		*	BU4011B	IC NAND(FM/AM SW SIGNAL)	UEX	
IC9			TC4011BP	IC NAND(FM/AM SW SIGNAL)	KPUM	
IC9			TC4011BP	IC NAND(FM/AM SW SIGNAL)	UEX	
IC9			UPD4011BC	IC NAND(FM/AM SW SIGNAL)	KPUM	
IC9			UPD4011BC	IC NAND(FM/AM SW SIGNAL)	UEX	
IC9 ,10		*	BU4011B	IC NAND(FM/AM,MW/LW SW SIG)	TE	
IC9 ,10			TC4011BP	IC NAND(FM/AM,MW/LW SW SIG)	TE	
IC9 ,10			UPD4011BC	IC NAND(FM/AM,MW/LW SW SIG)	TE	
IC11			UPA80C	IC DIGIT DRIVER(TR ARRAY)		
Q1			3SK73(GR)	FET	E	
Q2			2SK161(GR)	FET	KPUM	
Q2			2SK161(GR)	FET	UEXT	
Q3			2SC1923(Q)	TRANSISTOR		
Q4			2SC1675	TRANSISTOR		
Q5			2SK161(GR)	FET	TE	
Q6 ,7			2SC1675	TRANSISTOR		
Q8			2SC2320(E,F)	TRANSISTOR		
Q8			2SC945(A)(Q,P)	TRANSISTOR		
Q9 ,10			2SK161(Y,GR)	FET	TE	
Q11 ,12			2SC2320(E,F)	TRANSISTOR	TE	
Q11 ,12			2SC945(A)(Q,P)	TRANSISTOR	TE	
Q13			2SC2320(F)	TRANSISTOR		
Q13			2SC945(A)(P)	TRANSISTOR		
Q14			2SC2320(E,F)	TRANSISTOR	KPUM	
Q14			2SC2320(E,F)	TRANSISTOR	UEX	
Q14			2SC945(A)(Q,P)	TRANSISTOR	KPUM	
Q14			2SC945(A)(Q,P)	TRANSISTOR	UEX	
Q14 -18			2SC2320(E,F)	TRANSISTOR	TE	

E: Scandinavia & Europe H:Audio Club K: USA P: Canada
S: South Africa T: England U: PX(Far East, Hawaii)
UE: AAFES(Europe) X: Australia M: Other Areas

⚠ indicates safety critical components.

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
Q14 -18			2SC945(A)(Q,P)	TRANSISTOR	TE	
Q17 ,18			2SC2320(E,F)	TRANSISTOR	KPUM	
Q17 ,18			2SC2320(E,F)	TRANSISTOR	UEX	
Q17 ,18			2SC945(A)(Q,P)	TRANSISTOR	KPUM	
Q17 ,18			2SC945(A)(Q,P)	TRANSISTOR	UEX	
Q19			2SA733(A)(Q,P)	TRANSISTOR		
Q19			2SA999(E,F)	TRANSISTOR		
Q20 -24			2SC2320(E,F)	TRANSISTOR	E	
Q20 -24			2SC945(A)(Q,P)	TRANSISTOR	E	
Q21 -24			2SC2320(E,F)	TRANSISTOR	KPUM	
Q21 -24			2SC2320(E,F)	TRANSISTOR	UEXT	
Q21 -24			2SC945(A)(Q,P)	TRANSISTOR	KPUM	
Q21 -24			2SC945(A)(Q,P)	TRANSISTOR	UEXT	
Q25			2SA733(A)(Q,P)	TRANSISTOR		
Q25			2SA999(E,F)	TRANSISTOR		
Q26 ,27			2SD1302(S)	TRANSISTOR		
Q28			2SC2320(E,F)	TRANSISTOR		
Q28			2SC945(A)(Q,P)	TRANSISTOR		
Q29 ,30			2SA733(A)(Q,P)	TRANSISTOR		
Q29 ,30			2SA999(E,F)	TRANSISTOR		
Q31			2SC2320(E,F)	TRANSISTOR		
Q31			2SC945(A)(Q,P)	TRANSISTOR		
Q32 ,33			2SA733(A)(Q,P)	TRANSISTOR	TE	
Q32 ,33			2SA999(E,F)	TRANSISTOR	TE	
Q34			2SC2320(E,F)	TRANSISTOR	TE	
Q34			2SC945(A)(Q,P)	TRANSISTOR	TE	
Q35			2SA733(A)(Q,P)	TRANSISTOR	UMUE	
Q35			2SA999(E,F)	TRANSISTOR	UMUE	
Q36 -41			2SC2320(E,F)	TRANSISTOR		
Q36 -41			2SC945(A)(Q,P)	TRANSISTOR		
Q42			2SC2167(Y,G)	TRANSISTOR		
Q42			2SD330(E,F)	TRANSISTOR		
Q43			2SD863	TRANSISTOR		

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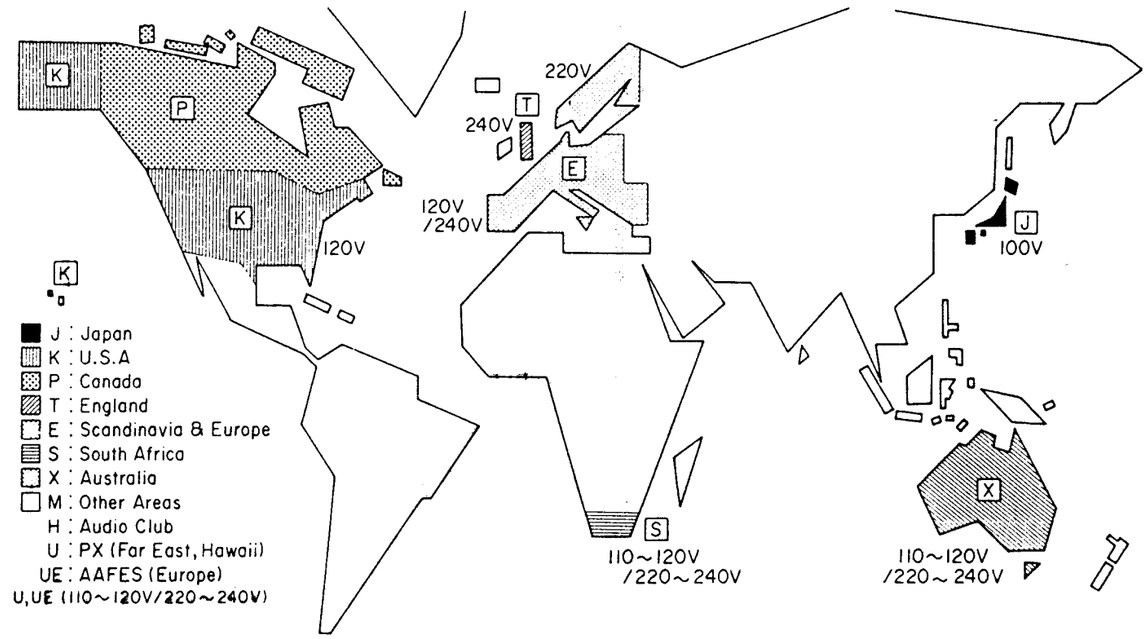
⚠ indicates safety critical components.

MEMO

WORLD MAP & AREA CODE



Note:
Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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